

Abstract

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Impregnation methods – silver stain –their importance in diagnostic and transplant pathology

Bachelor's thesis

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Medical bioanalytics

The impregnating histological methods are based on saturation of tissue sections with metal salts. The most commonly used silver staining methods employ silver ions for impregnation. Product of those methods is elementary silver, reduced "in situ" to the specific tissue components. (Newman, and others, 1998)

The aim of this thesis was to analyze the most commonly used impregnating methods, to show their use in diagnostic pathology and to present the methodics of those techniques. The secondary aim of this thesis was to evaluate their importance in routine histopathological practice.

The introduction part contains general information about the impregnating methods and their use. General theoretical part deals with the principle of those methods, special part deals with the structures which are showed by using those methods, and with general description of histological process. Methodical part contains detailed descriptions of chosen silvering methods, and their results.

Conclusions have shown that the aims of the thesis have been met and that the impregnating methods are an important tool in the histopathologic diagnostics. They are still used routinely and significantly contributes to the diagnosis, inter alia nephropatology and hepatopathology.

Methods used in this thesis are: Grocott's stain for fungi, Gömöri's method for the reticular fibres, Jones's method for basement membranes and Warthin-Starry's method for *Helicobacter*.

Keywords: Impregnating methods, silvering, Grocott, Gömöri, Jones, Warthin Starry